M M Abid Naziri

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About Me

My research focuses on testing software, specifically learning-enabled systems. My current projects include testing deep learning libraries such as **PyTorch** and **TensorFlow** and simulation-based test generation for **Autonomous Driving Systems**. I have reported 94 bugs (74 confirmed) to **PyTorch** and **TensorFlow** to date [list].

Education

NC State University, PhD in Computer Science (4th year)

May 2027 (Expected)

Advisor: Dr. Marcelo d'Amorim

Award: Graduate Merit Award - Summer 2025

Publications

BugsInDLLs : A Database of Reproducible Bugs in Deep Learning Libraries to Enable Systematic Evaluation of Testing Techniques

ISSTA 2025

M M Abid Naziri, Aman Kumar Singh, Benjamin Wu, Feiran (Alex) Qin, Saikat Dutta, Marcelo d'Amorim The ACM SIGSOFT International Symposium on Software Testing and Analysis (ISSTA 2025) *Tool Demonstration Track* [pdf]

Evaluating the Effectiveness of Neurosymbolic Constraint Learning for Testing Deep Learning Library APIs

Submitted

M M Abid Naziri, Shinhae Kim, Feiran Qin, Saikat Dutta, Marcelo d'Amorim *Submitted*

Testing Autonomous Driving Systems with Focused Misbehavior Forecasting

Submitted

 \boldsymbol{M} \boldsymbol{M} \boldsymbol{Abid} \boldsymbol{Naziri} , Stefano Carlo Lambertenghi, Andrea Stocco, Marcelo d'Amorim $\boldsymbol{Submitted}$

Evaluating the Effectiveness of Coverage-Guided Fuzzing for Testing Deep Learning Library APIs

Submitted

Feiran Qin, *M M Abid Naziri*, Hengyu Ai, Saikat Dutta, Marcelo d'Amorim *Submitted* [preprint]

Experience

Senior Software Engineer, Enosis Solutions – Dhaka, Bangladesh

Mar 2019 - Jul 2022

- Developed scalable web applications using Vue JS, TypeScript, and ASP.NET Core, including a project management tool deployed to 270 employees and a Welder Management system
- Developed desktop applications DesignCalcs and ProWrite for pressure vessel design, adding features, fixing bugs, and creating unit/regression tests
- Managed CI/CD pipelines, configured testing servers, and ensured smooth system operations
- Operated in an Agile development process in a development team of 7 people
- Mentored new recruits, conducted code/design reviews
- Collaborated with clients and team members via JIRA

Technologies

Languages: Python, R, C#, Delphi, Java, C/C++, JavaScript, TypeScript, Bash

Technologies: PyTorch, TensorFlow, Carla Simulator, ASP.NET Core, React JS, Vue JS, TestComplete, DUnit